

XXIII.—*Notices of recent Ornithological Publications.**Chapin on the Ploceidæ.*

[The Classification of the Weaver-birds. By James P. Chapin. Bull. Amer. Mus. N. H., New York, xxxvii. 1917, pp. 243-280, pls. vi.-x.]

The classification of the Weaver-birds has long been in a somewhat unsatisfactory condition; it has been based on the condition of the outer or tenth primary. In some genera this feather is large and well developed, and exceeds half the length of the next or ninth; in other cases it is quite minute and is shorter than the primary-coverts. This distinction is by no means a sharply-defined one and in some genera hardly holds good, some of the species falling into one group and some into another; moreover, it separates such forms as the Whydahs (*Coliuspasser*) and the Bishop-birds (*Pyromelana*) from the typical Weavers (*Ploceus*), to which they have many affinities, and allies them to the Waxbills and other small forms such as *Estrilda*.

Mr. Chapin proposes, first of all, to remove entirely from the family the genera *Textor* and *Dinemellia*, which can be distinguished by important modifications of the skull in the matter of the arrangement of the orbital foramina and in the form of the spina interna of the sternum. These and other peculiarities entitle *Textor* and *Dinemellia* to rank, in the opinion of Mr. Chapin, as a distinct family—Textoridae.

He proposes to divide the Ploceidæ into two subfamilies, for which he retains the old names Estrildinæ and Ploceinæ. The first of these—the Weaver-Finches—are distinguished by the fact that the nestlings almost always have dark pigmented spots or lines in their mouths and often wattles at the gape; the nests are not pensile or really woven; the eggs are white; and, as a general rule, the outer (tenth) primary is shorter than the primary-coverts. All the smaller forms of Waxbills, Negro-Finches, Silverbills, Mannikins, etc., etc., come in this subfamily.

The Ploceinæ or Weaver-birds proper lack the mouth-marks and the gape-wattles in the nestlings; they weave their nests, which are pensive and generally rounded or retort-shaped, often with a funnel-like opening; the eggs are usually coloured and spotted; and the outer primary is very generally longer than the primary-coverts. To this group belong the true Weavers, the Whydahs, and Bishop-birds.

The position of *Philetairus*, which builds the extraordinary social nests in the drier parts of South Africa and which is sometimes included among the Finches, is discussed. Mr. Chapin is inclined, on the whole, to include it among the Ploceidæ, notwithstanding its very tiny concealed outer primary, resembling that of the Fringillidæ, and places it near *Ploceipasser* in the subfamily Ploceinæ.

Another genus whose position is considered is *Parmoptila*, which is confined to the West African subregion. The members of this genus, four in number, are small and inconspicuous, and have slender bills. Sharpe in the Catalogue referred them to the Dicæidæ, but in the Hand-list followed Shelley in placing them in the Sylviidæ, while Reichenow placed them with the Titmice. Mr. Chapin, who has been fortunate enough to observe *P. jamesoni* alive in the Congo forest, is convinced that this genus should be referred to the Ploceidæ and that it should be put near *Nigrita* among the Estrildinæ, and he was further confirmed in his opinion by finding that the nestling had a spotted mouth as well as gape-wattles.

An appendix contains a survey of the characters of each of the Ploceid genera, so far as is at present known. No worker on African Ornithology can afford to neglect this most interesting and suggestive paper, but at the same time it must be pointed out, as the author himself admits, that our knowledge of the facts about many of the rarer genera is at present very scanty, and a great deal more investigation must be undertaken before his conclusions can be universally accepted.

Chapman on new Antillean Birds.

[Descriptions of new Birds from Santo Domingo and Remarks on others in the Brewster-Sanford Collection. By Frank M. Chapman. Bull. Amer. Mus. N. H., New York, xxxvii. 1917, pp. 327-334.]

Mr. R. H. Beck, who has been collecting for Messrs. Brewster and Sanford in South America, has recently passed several months in Santo Domingo collecting both on the coast and in the mountainous interior, and Mr. Chapman in this paper describes three interesting new species obtained there. These are *Oreopeleia leucometopiis*, sp. n., a Ground-Dove allied to *O.* [or *Geotrygon*] *caniceps* of Cuba, but very distinct not only in markings but in the form of the primaries; *Microsiphonorhis brewsteri*, gen. et sp. n., a Goat-sucker or Night-Hawk near *Siphonorhis americanus* of Jamaica which is supposed to be now extinct; and *Microligea montana*, sp. n., allied to but obviously specifically distinct from *M. palustris* (Cory) of the same island and the only known species of the genus up to now.

Mr. Chapman appends some interesting remarks on *Loxia megaplaga*, the Santo Domingan White-winged Crossbill, and *Brachyospiza capensis antillarum*, both described last year by Mr. Riley (see *supra*, p. 256), of which a good additional series was secured by Mr. Beck.

Clark and Adames' Phenological Observations.

[Report on the Phenological Observations in the British Islands, from December 1914 to November 1915. By J. Edmund Clark, B.A., B.Sc., and Henry B. Adames, F.R.A.S. Quart. Journ. R. Meteor. Soc. xlii. 1916, pp. 233-265.]

The results of the observations made by numerous correspondents in the British Islands on the earliest dates of the flowering of certain selected flowers and the first appearance of certain birds and insects are all here presented in a series of tables. They are arranged to show the differences from the mean of series of years. Thus in the spring of 1915 the

mean date for the first hearing of the song of the Song-Thrush was January 17, five days earlier than the 25 years' mean, January 23. The mean date for the first Swallow of 1915 was April 22, four days later than the mean date, April 18. The Cuckoo's mean was April 28, four days late, and the Flycatcher's May 10, five days early. In addition to these observations, continuously recorded for twenty-five years, the authors commenced in 1914 a new table with observations on the arrival-date of some twenty of the commoner migrants. This will undoubtedly eventually be of great value in fixing the average arrival-date of these species, but at present the observations have not yet continued through a sufficient number of years to make any definite deductions.

We should like to draw the attention of all those interested in migration, and especially the members of the migration committee of the B. O. C., to these valuable reports and tables. As they are published in a journal not usually consulted by ornithologists, there is some risk of their escaping notice.

Dixon on the Yellow-billed Loon.

[Migration of the Yellow-billed Loon. By Joseph Dixon. *Auk*, xxxiii. 1916, pp. 370-376.]

Mr. Dixon, who spent a considerable time during 1913 and 1914 on the arctic coast of Alaska, corroborates to a great extent the late Prof. Cooke's views on the subject of the migration route of the Yellow-billed Loon (*Gavia* or *Colymbus adamsi*) mentioned in 'The Ibis' (1916, p. 358). Although he and his companions noticed numbers of these birds in June and early July, no evidence of nesting or breeding was obtained, and the spring migration route appears to run from eastern Asia to Bering Strait, Point Barrow, and the Mackenzie Delta, and thence probably up the Mackenzie River to breeding-places in the interior. No evidence of the return autumnal migration was obtained by Mr. Dixon.

Grinnell on limitations of distributional areas.

[Field tests of theories concerning Distributional Control. By Joseph Grinnell. Amer. Nat., New York, li. 1917, pp. 115-128.]

In this thoughtful article Mr. Grinnell discusses the various factors which exert a control on the ranges of various animals. Among these may be mentioned humidity, temperature, food-supply, cloudiness, and of course land- and sea-barriers. He then takes the case of certain selected birds and mammals, and endeavours to show what factors have in each case limited their distribution. The case of the Oregon Jay (*Perisoreus obscurus*), a close ally of the Canada Jay or Whiskey Jack, is especially interesting. This bird is only found in the northern parts of California. Even there it is very local in its occurrence and absolutely non-migratory. In the north-eastern part of the interior of California it is found in the Warner mountains and on Mt. Shasta, from about 7000 feet to timber-line, and is unknown below that level; but in the north-west along the Pacific coast it re-occurs in the forests near the sea, but here it rarely ranges higher than 300 or 400 feet above sea-level, although there are mountains not far inland rising to several thousand feet.

After an examination of all the possible factors to explain this curious anomaly, Mr. Grinnell came to the conclusion that it is due to a cool summer temperature, which is very marked on the Pacific coast, owing to the sea-breezes from the ocean, and this approximates to the summer temperature of the Warner and Shasta mountains at 6000 or 7000 feet in the mountains of the interior, while in the country between the summer temperature is far higher. On the other hand, the winter climate of the coastal area is of course far milder than that of the mountains. In this case there can be no question of humidity as Humboldt Bay, the coast-locality, is the most humid and rainy area of the State, whereas the Warner and Shasta mountains are relatively arid. The critical factor therefore in this case is summer temperature.

Another interesting case considered at length by Mr. Grinnell is that of the Western Meadow-lark (*Sturnella neglecta*). This bird is essentially an inhabitant of grassy plains and meadows, and wherever these are found throughout California there are Meadow-larks, except above the 4500-foot level. Although there are plenty of meadows above that altitude in all parts of the mountains, no Meadow-lark reaches them. In this case, too, there can be little doubt that summer temperature is again the principal limiting factor.

Several other cases are discussed, and the final conclusion is reached that, although the summer temperature is of great importance—perhaps of the greatest importance—as a limiting factor, other controlling agents must be taken into consideration, and each problem must be considered by itself and all the various factors examined if a satisfactory conclusion is to be reached.

Grinnell on the Evening Grosbeak.

[The subspecies of *Hesperiphona vespertina*. By Joseph Grinnell. Condor, xix. 1917, pp. 17-22.]

The Evening Grosbeak is a handsome but somewhat scarce bird, and is found over the greater part of North America. Only two subspecies have been hitherto recognised—the typical eastern (*Hesperiphona v. vespertina*) and a western one (*H. v. montana*). This latter form was described by Ridgway in 1874, but no type-locality was mentioned or type-specimen indicated in the original description. Subsequently a specimen in the U.S. National Museum from Cantonment Burgwin in New Mexico was considered the type of *H. v. montana*, and was so published by Mearns in 1890. Mr. Grinnell, however, considers that as the drawings illustrating Ridgway's original description were made from another specimen, also in the U.S. National Museum, obtained near Vera Cruz, this individual should be considered the type, and Mexico near Vera Cruz the type-locality.

Finally, Mr. Grinnell, from the examination of over a hundred skins from all parts of North America, finds it necessary to recognise three new subspecies in addition to the original *H. v. vespertina* and *H. v. montana*, which latter is confined to Mexico and southern Arizona. These are *H. v. brooksi* from British Columbia west of the Rockies, *H. v. californica* confined to California and southern Oregon, and *H. v. warreni* from Colorado to New Mexico and northern Arizona.

The characters given for discriminating these subspecies are not very marked ones—proportions of bill, width of frontal band and colour-tones generally; but probably with a large series it may be possible to distinguish the five forms. It need hardly be added that the Evening Grosbeak is a great wanderer in winter, and the ranges given are the probable summer ones.

Gurney's Report on Norfolk Ornithology.

[Ornithological Notes from Norfolk for 1916. 23rd Annual Report. By J. H. Gurney, F.Z.S. British Birds, x. 1917, pp. 230-244.]

Mr. Gurney's Norfolk Notes are published in 'British Birds' instead of the 'Zoologist' as formerly, since the latter journal has now become extinct. The notes also are now arranged under species and general headings instead of in diary form as heretofore—a very great improvement.

Mr. Gurney has a good deal to say about the Rook question, and does not seem quite satisfied that their beneficial actions balance those detrimental to agriculture. Although during the early ploughing they undoubtedly destroy and consume the grubs of many noxious insects—crane-fly, wire-worm, and cockchafer, yet at the same time they do much damage. When the frost comes they attack the wheat-stacks, pull out the grain and straw, and allow the damp to enter. They also grub up potatoes and grain after it has been sown, and do much damage in this way. Mr. Gurney is also very severe on the Wood-Pigeons which have increased so enormously in every part of England

of late years. They destroy the kale and also devour the leaves of the swedes and mangolds.

There have been few outstanding events of ornithological importance to be noted in Norfolk during 1916. An adult Sabine's Gull was noticed in April on Breydon water by Mr. A. H. Patterson, and a White Stork frequented Burgh Castle marshes in May, which apparently ultimately met with the usual fate of conspicuous and rare birds. A few Spoonbills were seen at Breydon in May, June, and July, and the Cormorant was again found breeding, this time at Hockwold Farm near Brandon by Mr. H. E. Upcher. There was a singular immigration of Pomatorhine Skuas in September at Blakeney. About seventy were seen passing overhead by Mr. E. Ram and moving inland in a south-easterly direction. Nothing of the sort appears to have been noticed either in Lincolnshire or Suffolk, or indeed elsewhere in Norfolk.

Gurney on the Rough-legged Buzzard.

[Immigration of Rough-legged Buzzards in 1915-16. By J. H. Gurney, F.Z.S. Trans. Norfolk and Norwich Nat. Soc. x. 1917, pp. 168-170.]

During the winter of 1915-16 there was a large influx of Rough-legged Buzzards (*Buteo lagopus*) into the eastern counties. Mr. Gurney reckons that at least forty visited Norfolk and half that number Suffolk and Lincolnshire. As usual, their food proved to be chiefly rabbits, but they also kill numbers of rats, so that they should be regarded as beneficial rather than harmful. Mr. Gurney remarks that the iris of the adult bird is not invariably, as has been asserted, bright yellow. The last irruption of Rough-legs in the eastern counties was in 1880.

Hartert's recent short papers.

[One of the rarest birds. By Ernst Hartert, Ph.D. Nov. Zool. xxiii. 1916, pp. 335-336, pl. i.

Notes on the Little Bustard. Id. *ibid.* pp. 337-339, pl. ii.

On the name of the "Auklets." Id. *ibid.* pp. 339-340.

The distribution of *Columba gymnoptilma*. By Ernst Hartert, Ph.D. Nov. Zool. xxiii. 1916, p. 341.

The name of the central European Cormorant. Id. *ibid.* p. 318.]

The rare bird with which Dr. Hartert's first note deals is *Callæops periophthalmica*, a Muscicapine bird obtained a good many years ago by the late John Whitehead in Luzon. The single extant specimen was not collected by Mr. Whitehead himself, but purchased by him from an Indian in Manilla, and is now in the Tring Museum.

It was described as the type of a new genus by Mr. Ogilvie-Grant, who believed its nearest ally to be *Arses*, an Australian and Papuan genus.

Dr. Hartert considers that it is very close to another Philippine genus, *Xeocephus* or *Zeocephus* Bp., from which it only differs in having a smaller bill and a larger crest. A coloured plate enables us to obtain a good idea of the peculiarities of this unique species.

Dr. Hartert has made an interesting discovery in regard to the structure of the wing of the Little Bustard, which seems never to have been previously mentioned. In the male only, the fourth primary is much shorter than the third or fifth, and both the outer and inner webs are curiously narrowed about the middle of their length. Dr. Hartert suggests that the gaps which would be found in the outspread wing by the narrowing of the fourth primary may possibly have something to do with the piping note often noticed with every beat of the wings of this bird during flight. The moult of the Little Bustard differs from that of the other Bustards, except *Sypheotis aurita*, the Indian Florican. The male has a striking seasonal change. The winter plumage, which closely resembles that of the female, is assumed with the total moult after the breeding-season. In the spring a second partial moult occurs (not affecting the wings and tail), and in this way the lavender-grey, black-and-white colouring of the nuptial dress is assumed. Finally, Dr. Hartert proposes to recognise two races of the Little Bustard—a western, *Otis tetrax tetrax*, breeding in North Africa, Spain and parts of France, and an eastern, *Otis tetrax orientalis* (here described—type from

Sarepta in southern Russia), found throughout western Siberia, southern Russia, the Balkan Peninsula, and the valley of the Danube to Austria.

In the third note Dr. Hartert points out that, although the authors of the A. O. U. Check-list have acted correctly in using the generic name *Aethia* instead of *Simorhynchus* for the Auklets, their reasons for so doing were not justified. The name *Aethia* is to be found in a well-known, though somewhat scarce work, published by Merrem in 1788 under the title "Versuch eines Grundnisses zur Allgemeinen Geschichte und natürlichen Eintheilung der Vögel," and the quotation for the generic name should be: *Aethia* Merrem, Vers. Grundr. Allg. Gesch. u. nat. Eintheil. Vög. i. -Tentamen Syst. Nat. Av. pp. 7, 13, 20 (1788: monotype *A. cristatella* Pall.).

Columba gymnopterna, the name and distribution of which were discussed in a previous communication, is now found to occur along the arid northern coast of Venezuela and Colombia as well as in the adjacent islands Curaçao and Aruba; and, finally, the name of the central European Cormorant, previously discussed on pp. 293-5 of the same volume (*vide supra*, p. 101), must be *Phalacrocorax sub-cormoranus* Brehm (Ornis, i. 1824, p. 42: Holland).

Mathews on the Birds of Australia.

[The Birds of Australia. By Gregory M. Mathews. Vol. vi. pt. 3, pp. 217-296, pls. 291-299. London (Witherby), April 1917. 4to.]

The author's arrangement of the Psittaciformes, or Parrot alliance, has already been discussed in our last notice (*vide supra*, p. 253); but it should be noted that constant reference is made in this further instalment to the divisions that he has adopted, and to the fact that he finds osteological characters here comparatively unimportant.

Part iii. starts with the conclusion of the genus *Licmetis*, which is admitted to be of very doubtful validity; in fact, *Ducorpsius sanguineus sanguineus* and *D. s. distinctus* might be, or even have been, confounded with *Licmetis tenuirostris derbyi* and *L. t. pastinator* respectively.

Eolophus Bp. is accepted for the "Galah," which is without doubt generically separable by its wing-formation and coloration, and four subspecies (exclusive of the type) are allowed under *E. roseicapillus*, *E. r. lowei* being new. Our attention is also drawn to the fact that the name *roseicapillus* of Vieillot (who subsequently altered it to *rosea*) was founded on the same specimen as *eos* of Kuhl.

Mr. Mathews's new family Leptolophidæ contains the "Cockatoo-Parrot," here given as *Leptolophus hollandicus* Kerr, since *novæ-hollandiæ* is preoccupied. This bird is not a Cockatoo, and it may be necessary to remove it further from that group. All subspecies are cancelled, as they are not constant.

With reference to the author's family Loriidæ, it will be remembered that he prefers *Lorius* Bodd. to *Eclectus*, and that the two fine Parrots recorded ('Emu,' xiii. p. 105) as new to Australia proved to be *Lorius pectoralis* (*macgillivrayi*) and *Geoffroyus geoffroyi*. The latter was at first thought to be a new species, and called *Pseudopsittacus macleannani**.

In the Polytelitidæ *Polytelis swainsonii* is determined to be the correct appellation for *P. barrabundii* auct., which name Kuhl had used previously, and the synonymy shews that Vigors later entitled the female *rosaceus*. The subspecies *P. s. whitei* is dropped. Again, *P. anthoepus* is shown to be merely the female of *P. melanura*, and the first of these two names to hold good. Under *Northipsitta* (= *Spathopterus* North) all subspecies of *alexandræ* are now cancelled. *Aprosmictus* is once more preferred to *Ptistes*, and the subspecies of *A. erythropterus* are maintained, namely, *coccineopterus*, *parryensis*, *yorki*, and *melvillensis*, though this is a case of "fine splitting." The forms of *Alisterus scapularis*, thus correctly named, are fully discussed, while a new genus *Layardiella* is proposed for the group typified by *Psittacus tabuensis* Gm. (= *hysginus* Forst.). *Pyrrhulopsis*

* Notes are here given on the dates of publication of the sheets of Bonaparte's *Consp. Gen. Av.*, and we are told that *Rhodocephalus* may yet oust *Geoffroyus*.

Rehb. is entirely rejected and *Prosopcia* revived for the species *personata*. The subspecies *minor* and *neglectus* of *A. scapularis* are upheld.

North on the Birds of North-West New South Wales.

[The Birds of Coolabah and Brewarrina, north-western New South Wales. By Alfred J. North, C.M.B.O.U. Records Australian Mus. xi. pt. 6, 1916, pp. 121-162, 5 pls.]

Mr. North, of the Australian Museum at Sydney, spent his annual vacation in 1915 at Coolabah and Brewarrina in the dry interior of New South Wales. The first-named place is about 430, the second-named 518 miles from Sydney in a north-westerly direction. At Coolabah the country was suffering from a drought, and birds were not particularly abundant; but at Brewarrina, which is situated on the upper waters of the Darling River, things were better and more satisfactory results were obtained. A list of some sixty species noticed and procured is given with a number of interesting field-notes. We observe that Mr. North pointedly eschews the use of trinomials and that his nomenclature follows in most cases the 'Catalogue of Birds in the British Museum.' Several pages of the introduction are devoted to a description and discussion of the curious aboriginal fish-traps made of lines of stones enclosing a number of pools in the Darling River, into which the fishes are driven by the natives and so secured. Most of the photographs are also devoted to illustrating this very interesting native method of securing a supply of fish.

Palmer's Biographical Index.

[Biographical Index to 'The Auk,' 1876-1914. Prepared by T. S. Palmer, with the assistance of the Index Committee, 1915: extr. from the 'Ten Year Index of the Auk,' pp. vi-xxv.]

This is a most useful index to the names of all persons of whom biographical notices have been published in the 'Auk' and its predecessor, the 'Bulletin of the Nuttall Ornithological Club.' It also includes the names of all

deceased members of the American Ornithologists' Union up to the end of 1914. The names are 275 in number, and under each are given the full Christian names, a reference to a memoir or notice either in the pages of the 'Auk' or elsewhere, place and date of birth and death, and age at death. The amount of research and correspondence required to prepare such a list as this is incredible, and we must congratulate Mr. Palmer on having carried through a most useful and valuable piece of work.

Petronievs and Woodward on Archaeopteryx.

[On the Pectoral and Pelvic Arches of the British Museum specimen of *Archaeopteryx*. By Branislav Petronievs and Arthur Smith Woodward. Proc. Zool. Soc. 1917, pp. 1-6, pl. i.]

Some further development of the slab which contains the remains of the British Museum example of *Archaeopteryx* has been recently undertaken, and some of the preliminary results are given by the authors of this paper. The coracoid has been uncovered and is found to meet with the scapula at a wide angle and to be fused with it—a condition of things which resembles that in certain Mesozoic reptiles, rather than in any recent birds. The pelvis has also been freed from the matrix in which it lies, so that the relations and shape of the bones can be seen. The pubis meets its fellow of the other side and forms a symphysis, and this only occurs among existing birds in the Ratitæ; but in most respects, as with the pectoral, the pelvic arch is very much more reptilian than avian. Mr. Petronievs believes that the difference between the British and Berlin Museum specimens is sufficiently important to necessitate the placing of the latter form in a separate genus, for which he proposes the new name *Archæornis*.

Storer on the care of "separates."

[The care of pamphlet collections. By Tracy I. Storer. Science, New York, xlv. 1916, pp. 735-739.]

Nearly all working zoologists are worried by the problem of how to preserve and arrange the "separates" which accumulate so rapidly, and which are so valuable if easily

accessible and so useless if not cared for. Some people bind them into volumes, some people arrange them on a book-shelf, and some file them in a vertical filing-cabinet. In the present paper Mr. Storer recommends a particular form of pamphlet-case, open only at the back, which he has found the most practical, and he further gives a number of hints for indexing and arranging which, if carried out, will be found to render one's collection of friends' and correspondents' papers both accessible and useful.

Taverner on the Faunas of Canada.

[Faunas of Canada. By P. A. Taverner. Department of Mines, Ottawa: in 'The Canada Year Book' for 1915, pp. 1-8. Ottawa, 1916. 8vo.]

In this short pamphlet Mr. Taverner reviews the history and general relations of North American life to that of the world in general, and then proceeds to delimit the faunal zones of the Canadian Dominion, adapting for his purpose the well-known classification of Dr. C. Hart Merriam. The Zones represented in Canada are:—(1) The Arctic—treeless and shrubless, with Snow-Buntings, Longspurs, and Ptarmigan as characteristic birds; (2) The Hudsonian, the region of small, stunted, mostly coniferous trees, with the Rough-legged Hawk, Northern Shrike, and Pine Grosbeak as characteristic birds; (3) The Canadian zone, with heavy coniferous forest and occupying the greater part of the Dominion, with the Olive-backed Thrush, Three-toed Woodpecker, Canadian Jay, and numerous (American) Warblers; (4) The Transition zone, consisting of prairies and hardwood forests, with Wild Turkey, Bob-white, and Wood-Thrush as characteristic birds; and finally (5) The Upper Austral, a narrow belt of country along the northern shores of Lakes Erie and Ontario, where the Mocking-bird, Carolina Wren, and Orchard Oriole are to be found.

Witherby on results of ringing partial migrants.

[On some results of ringing Song-Thrushes, Blackbirds, Lapwings, and Woodcock. By H. F. Witherby. *British Birds*, x. 1917, pp. 215-220.]

In order to arrive at some conclusions in regard to the

so-called partial migrants among British birds, Mr. Witherby has collected and summarized all the data he has received as to the movements of the four species mentioned in his title. He has only taken into consideration those cases where a bird has been ringed as a nestling and recovered in winter.

He finds that in the case of the British Song-Thrush about 50 per cent. of recoveries were close to the breeding-place and about 50 per cent. were away. From the latter returns the winter movement appears to be a south-western one, no less than six birds which were bred in south-west Scotland and Lancashire having been recorded in Ireland. Two also were taken in France and one in Spain, proving that some individuals at least of our home-bred Thrushes migrate southwards in winter.

The Blackbird appears to be more of a stay-at-home; over 70 per cent. of those ringed have been recovered close by their nesting-places, while of the 28 per cent. recovered away, only one, taken in France, is from outside the British Islands.

In the case of Lapwings there are more records, and those of Scottish and English nestlings have been separated. It is found that while over 80 per cent. of the former are recovered away from the nesting-place, the percentage is only 57 per cent. in the case of the latter. The favourite wintering ground of the Scottish birds is undoubtedly Ireland, while that of the English birds is more widespread, extending to Portugal and Morocco.

For the Woodcock the results are much the same; the recoveries away from the nesting-place are about 54 per cent., and the favourite wintering ground is Ireland.

The interest of Mr. Witherby's results is very considerable, but it must be borne in mind that the actual number of recoveries up to now is not very large and hardly warrant absolute deductions: at the same time it is most interesting to know the tendency of the data as far as they go.

British Birds.

[British Birds: an illustrated Magazine devoted to the Birds on the British List. Vol. x., June 1916-May 1917.]

From January last the old-established magazine, the 'Zoologist,' has been incorporated with 'British Birds.' The former was established by Edward Newman in 1843 and is therefore one of the oldest of zoological magazines; it was edited till 1876 by Mr. Newman, and subsequently by Messrs. J. E. Harting, W. L. Distant, and Frank Finn.

The longest article in the present volume of 'British Birds' is one by Mr. J. H. Owen on "The Nesting-habits of the Sparrow-Hawk." The observations and photographs were all made near Felsted in Essex, where Mr. Owen is an assistant master at the well-known school, and he has been fortunate enough to secure the assistance of some of his pupils in the laborious task of watching the several nests during a period of nine weeks. There are a series of five articles on "The Effects of Rain," "The Hen at the Nest," "The Cock," "The Nestling," "General Habits"—all are abundantly illustrated by photographs and together form the most complete life-history of the Sparrow-Hawk yet published.

Several parts of Mr. Witherby's "Moults of British Passeres" and results of the marking scheme have already been noticed in our pages. Miss Haviland contributes a short notice of the breeding-habits of Temminck's Stint (*Erolia* [or *Tringa*] *temmincki*) on the Lower Yenesei, and sends a photograph taken by herself on her recent trip to that country. Mr. Heatley Noble writes on the supposed breeding of *Branta leucopsis* in Iceland. When visiting that island in the summer of 1913, he saw an undoubted nest with eggs in the possession of a mysterious "general dealer." According to an account subsequently sent to Mr. Noble by the general dealer, the eggs were taken by himself in a remote district in Iceland. No positive evidence of the breeding of the Barnacle Goose in Iceland has yet been recorded.

Three birds new to the British list are recorded in the April number. These are:—*Melanocorypha calandra*, the Calandra Lark, which appears in the Appendix of the B. O. U. List among doubtful and unsatisfactory records; *Acrocephalus arundinaceus orientalis*, the eastern Great Reed-Warbler; and *Charadrius* (or *Ægialites*) *semipalmatus*, the Semi-palmated Ringed Plover of America. The first two of these were obtained close to St. Leonard's-on-Sea and are recorded by Mr. J. B. Nichols; the third was shot at Rye, also in Sussex, and is recorded by Mr. T. Parkin.

The volume in review, which fully sustains the reputation of its predecessors, contains many other valuable articles and notes, including contributions from Mr. H. G. Alexander on the birds observed by him at Dungeness, and from Mr. G. B. Dunlop on instances of occasional polygamy among Rooks.

Cassinia.

[*Cassinia*. Proceedings of the Delaware Valley Ornithological Club of Philadelphia, No. xx. for 1916, 1917.]

The opening article of 'Cassinia' deals with the history of William P. Turnbull, a Scotsman, who was born in 1830 at Fala in East Lothian and emigrated to America in 1850. He settled at Philadelphia, and died there in 1871. But little is known about him outside his work as an ornithologist. He published two works, one on the birds of East Lothian, and another in 1869 on the birds of east Pennsylvania and New Jersey, both interesting and rather scarce works. He was also an enthusiastic admirer of Alexander Wilson. A portrait of Turnbull prefaces the article.

Other contributions to this always scholarly annual are of local interest. Mr. H. W. Fowler writes on some rare birds recently observed on the Delaware in Upper Philadelphia, and Mr. T. D. Burleigh on bird-life about Samar in the foot-hills of the Appalachians, where the Pennsylvania State College had a forestry camp in the summer of 1916. A nest of the Least Bittern, which is almost invariably placed in dense reed-beds, was found near Camden, New Jersey, by Mr. J. K. Potter to be built in a

“button-bush” growing in an old mud-hole, and is well illustrated in three photographs.

The usual report on the spring migration in the Delaware valley, compiled by Mr. Witmer Stone from the schedules filled in by members of the Club, is always a valuable feature of this magazine.

Journal of the South African Ornithologists' Union.

[The Journal of the South African Ornithologists' Union. Vol. xi. no. 2. December 1916.]

This, we notice with great regret, will be the last number of the Journal to appear. It has been found impossible in so thinly populated a country to keep up sufficient interest in one department of Zoological Science alone to maintain a separate journal, and it has therefore been decided to found a new Society to be called the South African Biological and Natural History Society, which will absorb the South African Ornithologists' Union and the Transvaal Biological Society. It is the intention of the new Society to issue a quarterly Journal of Natural History dealing with all zoological subjects, and it is hoped that the first number will be issued this year.

The first part of the present series of volumes was issued in 1905, and the eleven completed volumes contain numerous valuable observations and descriptions of the utmost importance to all students of African Ornithology.

The present number is chiefly taken up with a list of the birds of Humansdorp, a district in the eastern half of the Cape Province, by Mr. B. A. Masterson. This is followed by a Report on the summer migration of 1915-16 as observed in the eastern districts of the Cape Province by the Rev. R. Godfrey. Mr. Swynnerton pleads for some observations bearing on the coloration of birds' eggs, in continuation of his researches and experiments published in 'The Ibis' last year; and the number concludes with some notices and circulars explaining the reasons for the formation of the new Society and the winding-up of the South African Ornithologists' Union.

South Australian Ornithologist.

[The South Australian Ornithologist. A Magazine of Ornithology, ii. pts. 5-8. Jan.-Oct. 1916.]

The four numbers of this magazine, published during last year, contain many interesting articles and show a good deal of improvement on those of the previous years. Mr. G. M. Mathews continues his notes on the birds of north and north-west Australia, commenced in 1915, but the name of the first species listed seems to have been lost; anyhow, it does not appear, which seems to indicate somewhat defective proof-reading. Short notes on the soft parts and the habits of some of the birds accompany this list, but no new forms are described. Mr. A. M. Morgan writes on the migrations of South Australian Swallows, and states that *Hirundo neoxena* is only partially migratory near Adelaide and can be always found during the winter, though less abundantly than during the summer. Of the other species *Hylochelidon nigricans caleyi* does not appear to leave the plains of South Australia at all, while *Lagenoplastes ariel* is a purely migratory bird arriving in September and leaving before the first of April.

Another paper of considerable interest is one by Mr. T. Bellechambers, giving an account illustrated with sketches of the habits of the Mallee Fowl (*Lipoa ocellata rosinae*). As is well known, this is one of the mound-builders, where the eggs are laid and are hatched partly by hot beds at the base of the mound and partly by the direct action of the sun on the sand which covers them. Many interesting details are given by Mr. Bellechambers, who has not only had frequent opportunities of studying the birds in a wild state, but has also succeeded in inducing the birds to breed in captivity. He has examined thirty-one mounds since 1907.

A second paper by Mr. A. M. Morgan deals with the exploration of some of the islands in St. Vincent and Spencer Gulfs, especially Althorpe and Wedge Islands, where many species of sea- and water-birds breed—such as

the Mutton-bird *Neonectris tenuirostris brevicaudus*, *Hydroprogne t. strenua*, *Sternula nereis*, and others. The stomach-contents of many of the birds were examined and the temperatures taken soon after death.

Finally, Capt. S. A. White describes a new Parrot, *Barnardius barnardi lindoi*, from Flinders Range, Central Australia, and a new Scrub-Wren, *Sericornis longirostris wyldi*, from the Coorong, the position of which is not stated nor can we find it in Stielers' Atlas. It would be well if authors were a little more careful on these matters.

List of other Ornithological Publications received.

- DABBENE, ROBERTO. *Especies y Subespecies aparentemente nuevas de Geositta y Cinclodes de la Republica Argentina y del sur de Chile.* [Physis (Revista de la Sociedad Argentina de Ciencias Naturales), T. iii. pp. 52-59. Buenos Aires, 1917.]
- FUERTE, LOUIS AGISSIZ. *Impressions of the Voices of Tropical Birds.* Smithsonian Report for 1915, pp. 299-323. Washington, 1916.
- SWENK, MYRON H. *The Eskimo Curlew and its Disappearance.* Smithsonian Report for 1915, pp. 325-340. Washington, 1916.
- The Auk. (Vol. xxxiv. No. 2. Cambridge, Mass., 1917.)
- Agricultural Magazine. (Third Series, Vol. viii. Nos. 6-8. London, 1917.)
- Bird-Lore. (Vol. xix. No. 2. New York, 1917.)
- Bird Notes. (New Series, Vol. viii. Nos. 2-5. Ashbourne, 1917.)
- British Birds. (Vol. xi. No. 1. London, 1917.)
- California Fish and Game. (Vol. iii. No. 2. San Francisco, 1917.)
- The Condor. (Vol. xix. No. 2. Hollywood, Cal., 1917.)
- The Irish Naturalist. (Vol. xxvi. Nos. 4-6. Dublin, 1917.)
- Journal of the Bombay Natural History Society. (Vol. xxv. No. 1. Bombay, 1917.)
- Journal of the Natural History Society of Siam. (Vol. ii. No. 2. Bangkok, 1916.)
- Messenger Ornithologique. (1917, No. 1. Moscow, 1917.)
- Revue Française d'Ornithologie. (Nos. 95-97. Orléans, 1917.)
- The Scottish Naturalist. (Nos. 64-66. Edinburgh, 1917.)
- The South Australian Ornithologist. (Vol. iii. pts. 1, 2. Adelaide, 1917.)